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Model #: SU40K

SmartOnline Modular 3-Phase UPS System - Modular 3-phase on-line double-conversion protection for mission-critical applications

Highlights

- 40,000 VA (40kVA) tower UPS with 2 hot-swappable power modules
- N+1 redundant modular architecture helps assure 100% availability
- 1+1 parallel capability allows for system redundancy or increased capacity
- Low THDi saves installation costs by permitting 1:1 generator sizing
- 3-phase hardwire (120/208VAC)input/output. Wide input voltage correction range (94-150V AC/163-260V AC)
- On-line, double-conversion operation with zero transfer time; IGBT technology; extremely efficient operation (up to 96%)
- Runtime is expandable via external battery cabinet options

Description

Tripp Lite's SU40K (40kVA) SmartOnline Modular 3-Phase Intelligent, True On-Line UPS System provides 100% system availability with N+1 modular architecture and 1+1 parallel capability. In an N+1 configuration, the SU40K provides two self-contained, redundant 20kVA power modules that can be hot-swapped (with the load powered) if maintenance is required. Connect two SU40K models in parallel (1+1 configuration) to provide fail-safe redundancy (two 40kVA models supporting a 40kVA load) or to increase capacity (two 40kVA models supporting an 80kVA load).

The SU40K provides mission-critical equipment with the highest level of power protection available. Large capacity 40,000VA/32,000W UPS continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Perfectly regulated, continuous sine wave output with zero transfer time assures compatibility with all equipment types. The SU40K's high input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology produce less than 3% input Total Harmonic Distortion (THDi). With low THDi, generators run cooler and last longer, allowing managers to save installation costs by installing a generator with a capacity equal to the equipment load (1:1 ratio). Extremely efficient operation (up to 96%) saves money by lowering electricity consumption. Hardwire input and output connections support a variety of permanent or PDU-style power connections. The SU40K features 120/208V AC, 3-phase, 4-wire (plus ground), wye input and output. It also features a wide input voltage correction range: 94-150/163-260V AC. Frequency is 50 or 60 Hz (auto-selectable). The SU40K combines internal power and battery components in a single small-footprint tower module. Typical half-load/full-load runtimes are 13 min./5.5 min. Battery runtime can be extended with optional stand-alone hardwired external battery modules (Models BP480V26B and BP480V40C with matching battery cabinets, available separately). Additional battery cabinets for extended runtime solutions also available; contact Tripp Lite for more information. A manual bypass breaker and an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power if the UPS requires maintenance. A built-in RS-232 communication port works with included PowerAlert Software to provide shutdown commands and reporting on a single server. An accessory slot accepts an optional internal SNMP card (Model SNMPWEBCARD) for remote shutdowns, reboots and more. Front panel combination LCD/LED display alerts users to a variety of UPS operational modes and conditions. The LCD display includes a real-time event log screen with up to 500 events listed. A dynamic battery management screen optimizes battery function to lengthen service life and allows cold restart of the UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval. An Emergency Power Off button turns the UPS output OFF and disables Bypass output. Built-in Emergency Power Off (EPO) dry-contact interface supports remote emergency shutdown in large facilities. A 4-year limited repair warranty is included. A start-up service program is recommended to enhance the reliability of the installation.

Package Includes

- SU40K UPS System
- PowerAlert Software and cabling
- Parallel cable (for 1+1 operation)
- Instruction manual and startup checklist
- Warranty information

Features

- N+1 configuration: two self-contained, redundant 20kVA power modules can be hot-swapped with the load powered if maintenance is required
- 1+1 configuration: two SU40K models connected in parallel provide fail-safe redundancy or increased capacity
- High input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology produce low input Total Harmonic Distortion (THDi)
- Low THDi (less than 3%) saves installation costs by allowing 1:1 generator sizing
- Extremely efficient operation (up to 96%) saves money by lowering electricity consumption
- True on-line, double conversion UPS with IGBT technology provides pure sine wave AC output at all times
- Maintains continuous operation through blackouts, voltage fluctuations and surges with zero transfer time
- Removes harmonic distortion, electrical impulses, frequency variations and other hard-to-solve power problems
- 40,000VA/32,000W power capacity with 3-phase, hardwire 120/208VAC input/output connections
- Features a wide input voltage correction range: 94-150/163-260VAC
- Internal power and battery components are combined in a single small-footprint tower module. Typical half-load/full-load runtimes are 13 min./5.5 min. Battery runtime can be extended with optional stand-alone hardwired external battery modules (Models BP480V26B and BP480V40C) with matching battery cabinets, available separately from Tripp Lite. Additional battery cabinets for extended runtime solutions also available; contact Tripp Lite for more information
- Front panel combination LCD/LED display includes a real-time event log screen with up to 500 events listed
- Dynamic battery management screen optimizes battery function to lengthen service life and allow cold restart of the UPS
- Built-in RS-232 communication port works with included PowerAlert Software to provide shutdown commands and reporting on a single server
- Accessory slot accepts an optional internal SNMP card (Model: SNMPWEBCARD) for remote shutdowns, reboots and more
- Emergency Power Off button turns UPS output OFF and disables Bypass output
- Built-in Emergency Power Off (EPO) dry-contact interface supports remote emergency shutdown in large facilities
- 1-year limited repair warranty
- Start-up service program is recommended to enhance the reliability of the installation

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	40000
Output kVA capacity (kVA)	40
Output Watt Capacity (watts)	32000
Output kW capacity	32
Output power factor	0.8
Crest Factor	3:1
Nominal Output Voltage(s) Supported	120/208V; 3-Phase Wye
Frequency compatibility	50 / 60 Hz
Output voltage regulation (line mode)	+/- 2%

Output voltage regulation (Battery mode)	+/- 2%
Built-in UPS output receptacles	Hardwire
Output AC waveform (AC mode)	Sine wave
Output AC waveform (battery mode)	Pure Sine wave
INPUT	
Rated input current (at maximum load)	97A (per phase, on-line)
Nominal Input Voltage(s) Supported	120V / 208V 3 phase wye
UPS input connection type	Hardwire
UPS input connection description	120/208V (3-Phase, 4 Wire, wye)
BATTERY	
Full load runtime (minutes)	5.5 min. (32kw)
Half load runtime (minutes)	13 min. (16kw)
Expandable battery runtime	Supports extended runtime with optional external battery packs
External battery pack compatibility	BP480V26B; BP480V40C; BP480V55; BP480V78; BP480V103; BP480V140
Expandable runtime description	External battery pack wiring is contractor supplied
DC system voltage (VDC)	240
Battery recharge rate (included batteries)	Less than 4 hours from 10% to 90%
Battery replacement description	Hot-swappable, replaceable batteries
VOLTAGE REGULATION	
Voltage regulation description	Online, double-conversion power conditioning
Overvoltage correction	Maintains continuous operation without using battery power during overvoltages to 150/260 (3-Phase, 4-Wire, wye), reducing output within 1% of nominal
Undervoltage correction	Maintains continuous operation without using battery power during brownout/undervoltage conditions to 94/163 (3-Phase, 4-Wire, wye)
LEDS ALARMS & SWITCHES	
LED Indicators	4-LED Display: Displays normal AC input, on battery power, bypass input and fault conditions
Alarms	Alarms signal a variety of operational conditions: low-battery, overload, shutdown, bypass and more

Alarm cancel operation	Power-fail alarm can be silenced using alarm-cancel switch
Switches	ON button turns UPS's inverter ON. OFF button turns UPS's inverter OFF. LCD Display Control Buttons browse through and select items displayed on LCD screen. Emergency Power Off button turns UPS output OFF and disables Bypass output. Manual Bypass breaker bypasses the UPS's inverter during maintenance
SURGE / NOISE SUPPRESSION	
UPS AC suppression joule rating	4675
UPS AC suppression response time	Instantaneous
EMI / RFI AC noise suppression	Yes
AC suppression joule rating	4675
AC suppression response time	Instantaneous
PHYSICAL	
Installation form factors supported with included accessories	Tower
Primary form factor	Tower
UPS / Power Module dimensions in primary form factor (height x width x depth / inches)	66.9 x 20.5 x 33.7
UPS / Power Module dimensions in primary form factor (height x width x depth / cm)	169.9 x 52.1 x 85.6
Installed whole system maximum rack depth (cm)	0
UPS / Power Module weight (lbs)	1512.5
UPS / Power Module weight (kg)	686.7
UPS Shipping dimensions (height x width x depth / inches)	76.2 x 28.8 x 45.5
UPS Shipping dimensions (height x width x depth / cm)	193.7 x 73 x 115.6
Shipping weight (lbs)	1690.2
Shipping weight (kg)	767.4
UPS housing material	Steel

Cooling method	Fans
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	0 to 95%, non-condensing
COMMUNICATIONS	
Communications interface	DB9 Serial; Slot for SNMP/Web interface
PowerAlert software	Included
Communications cable	DB9 cabling included
LINE / BATTERY TRANSFER	
Transfer time	No transfer time (0 ms.) in online, double-conversion mode
Low voltage transfer to battery power (setpoint)	Maintains continuous operation during undervoltages as low as 94 / 163V AC (3-Phase, 4-Wire, wye). Below this point, output is maintained utilizing battery reserves.
High voltage transfer to battery power (setpoint)	Maintains continuous operation during overvoltages as high as 150 / 260V AC (3-Phase, 4-Wire, wye). Above this point, output is maintained utilizing battery reserves.
SPECIAL FEATURES	
Cold Start (startup in battery mode during a power failure)	Cold-start operation supported
High availability UPS features	Automatic inverter bypass; Hot swappable batteries
Green & high efficiency features	High efficiency economy mode operation; Schedulable daily hours of economy mode operation
CERTIFICATIONS	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI); ROHS (Reduction of Hazardous Substances)
WARRANTY	
Product Warranty Period (U.S., Canada & Puerto Rico)	1-year limited warranty

Related Items

Required Products

Product Type	Related Model	Description	Qty.
Start-Up/Warranty Services	W05-BW1-247	3-Phase UPS System (20k, 30k & 40k) Start-Up and On-Site Warranty Service Programs	1
Start-Up/Warranty Services	W05-BW1-247-1B	3-Phase UPS System (20k, 30k & 40k) Start-Up and On-Site Warranty Service Programs	1

Optional Products

Product Type	Related Model	Description	Qty.

SNMP Accessories	SNMPWEBCARD	For remote monitoring and control via SNMP, Web, or Telnet.	-
SNMP Accessories	ENVIROSENSE	Monitors temperature, humidity and contact-closure inputs. (Requires SNMPWEBCARD or switched PDU.)	-
External Battery Packs	BP480V26B	External Battery Pack for Select 3-Phase UPS Systems	-
External Battery Packs	BP480V40C	External Battery Pack for Select 3-Phase UPS Systems	-
External Battery Packs	BP480V55	External Battery Pack for Select 3-Phase UPS Systems	-
External Battery Packs	BP480V78	External Battery Pack for Select 3-Phase UPS Systems	-
External Battery Packs	BP480V103	External Battery Pack for Select 3-Phase UPS Systems	-
External Battery Packs	BP480V140	External Battery Pack for Select 3-Phase UPS Systems	-
Start-Up/Warranty Services	W05-EW1-247	3-Phase UPS System (20k, 30k & 40k) Start-Up and On-Site Warranty Service Programs	-
Start-Up/Warranty Services	W05-EW1-247-1B	3-Phase UPS System (20k, 30k & 40k) Start-Up and On-Site Warranty Service Programs	-
Start-Up/Warranty Services	W05-SCBAS1	3-Phase UPS System (20k, 30k & 40k) - Basic Warranty Service Contracts	-
Start-Up/Warranty Services	W05-SCBAS1-1B	3-Phase UPS System (20k, 30k & 40k) - Basic Warranty Service Contracts - Includes primary battery cabinet plus one additional battery cabinet	-
Start-Up/Warranty Services	W05-SCENH1	3-Phase UPS System (20k, 30k & 40k) - Premium Warranty Service Contracts	-
Start-Up/Warranty Services	W05-SCENH1-1B	3-Phase UPS System (20k, 30k & 40k) - Premium Warranty Service Contracts - Includes primary battery cabinet plus one additional battery cabinet	-
UPS Accessories	SU40KMBPK	3 Breaker Maintenance Bypass Panel for SU40K	-
Parallel Tie Cabinets	SUPT40K	3-Breaker Parallel Tie Cabinet (for SU40K 3-Phase UPS)	-
External Battery Packs	BPE480VB	External Battery Pack for Select 3-Phase UPS Systems	-
External Battery Packs	BPE480VC	External Battery Pack for Select 3-Phase UPS Systems	-

More information, including related products, owner's manuals, and additional technical specifications, can be found online at www.tripplite.com/en/products/model.cfm?txtModelID=3789.

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